

EXHIBIT 4

Redacted First Deposition of Hal J. Singer Excerpts

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEVADA

- - -

IN RE: : Civil Action
: DOCKET NO.
CUNG LE, NATHAN QUARRY, : 2:15-cv-01045-RFB-
JON FITCH, BRANDON VERA, : (PAL)
LUIS JAVIER VAZQUEZ and :
KYLE KINGSBURG, on behalf : CLASS ACTION
of themselves and all :
others similarly :
situated, :
:
Plaintiffs, :
:
v. :
:
ZUFFA, LLC, d/b/a :
ULTIMATE FIGHTING :
CHAMPIONSHIP and UFC, :
:
Defendants. :

- - -

Wednesday, September 27, 2017

- - -

Videotaped deposition of
HAL J. SINGER, Ph.D., taken pursuant to
notice, was held at the law offices of
Berger & Montague, P.C., 1622 Locust
Street, Philadelphia, Pennsylvania 19103,
beginning at 9:24 AM, on the above date,
before Constance S. Kent, a Certified
Court Reporter, Registered Professional
Reporter, Certified LiveNote Reporter, and
Notary Public in and for the Commonwealth
of Pennsylvania.

* * *

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<p style="text-align: right;">Page 18</p> <p>1 Zuffa's foreclosure share, you used the 2 regression in Table 6 but you made an 3 adjustment and you removed data points 4 for Strikeforce prior to its acquisition 5 by Zuffa? 6 A. Correct. 7 Q. Okay. Thank you. 8 Then your next damages 9 model, which is on the next page, page 10 164. 11 A. Yes. 12 Q. Impact regression model 13 benchmark. The -- here you also use 14 the -- in this benchmark -- in this 15 analysis, you are also examining the 16 statistical relationship between the 17 Zuffa foreclosure share and the fighters' 18 share, the share of revenues to fighters 19 over time, correct? 20 A. Are we looking at Table 10? 21 Q. This would actually, I 22 think, tie to Table 11. 23 MR. CRAMER: 11. 24 THE WITNESS: Okay.</p>	<p style="text-align: right;">Page 20</p> <p>1 I think that my prior answer 2 was correct, but it wasn't -- it wasn't 3 precise, and I just want to be precise 4 about what it's capturing. 5 It is -- it is capturing 6 the -- 7 Q. When you say "it," you're 8 talking about the foreclosure? 9 A. The foreclosure share 10 measure. 11 Q. Okay. 12 A. Right. And how it relates 13 to the challenged conduct. I think that 14 the answer I gave you might create the 15 impression that all aspects of the 16 challenged conduct were being captured 17 by -- by the foreclosure variable, and I 18 just want to make it -- it clear that 19 there are only certain aspects of the 20 challenged conduct that are being 21 captured by the foreclosure variable, and 22 in that sense, the model is conservative 23 in the sense that it is not -- it is not 24 necessarily picking up the effect of all</p>
<p style="text-align: right;">Page 19</p> <p>1 BY MR. ISAACSON: 2 Q. You have your tables below 3 the sections. 4 A. Sorry. Let me just -- let 5 me just get this straight in my head. 6 And before we move to this 7 one, something has just been troubling me 8 with regard to a question you just asked 9 a second ago, and I think I may have 10 misunderstood the question. Is it okay 11 if I just -- if we can just get some 12 clarification. 13 Q. Sure. 14 A. Because I just want the 15 record to be sure. 16 You asked me if -- if the 17 foreclosure measure is capturing the 18 challenged conduct or something to that 19 effect. 20 Q. What do you want to say 21 about -- just say what you want to say. 22 A. Okay. Let me just tell you 23 because I just don't want there to be 24 any -- any misunderstanding.</p>	<p style="text-align: right;">Page 21</p> <p>1 elements of the challenged conduct, but 2 instead only -- it's really capturing 3 certain restrictions that relate to 4 exclusivity of the fighter contracts and 5 the duration. 6 So I just want to -- I just 7 want to clarify that. I don't know if 8 that -- if that was what you were asking, 9 but I just want to make sure that that 10 is -- 11 Q. Well, we're still going to 12 get to that subject at some point. 13 A. Okay. 14 Q. So I appreciate the preview. 15 A. Okay. So now -- now, let's 16 come back to -- I'm sorry for that 17 digression, but -- 18 Q. All right. So your fourth 19 measure of damages is also based on the 20 statistical relationship between a Zuffa 21 foreclosure share and the fighter shares, 22 the share of revenues that went to labor, 23 correct? 24 A. So we're in Subsection C on</p>

Page 22

1 164?

2 Q. Yes.

3 A. Okay. So this -- this
4 method, as the language suggests, goes
5 back and makes use of the pre-Strikeforce
6 acquisition data to inform the parameter
7 of the --

8 Q. What's the --

9 A. I'm sorry, the foreclosure
10 share parameter in the regression.

11 Q. Both the -- both of these
12 regression benchmarks look at the
13 statistical relationship between Zuffa's
14 foreclosure share and its -- and the
15 fighters' share to fighters over time,
16 but one excludes the Strikeforce -- the
17 data before the Strikeforce acquisition
18 and one includes it?

19 A. Exactly.

20 Q. And for common impact for
21 injury in terms of actual modeling, and
22 now I'm just referring to the bout class.

23 A. So are we leaving damages?

24 Q. Yes.

Page 23

1 A. We're going to common impact
2 now.

3 Q. Yes.

4 A. Okay.

5 Q. Referring to just -- and I
6 should say those damages models that we
7 just went over were just for the bout
8 class and not the identity class?

9 A. I wouldn't put it exactly
10 that way.

11 Q. How would you put it?

12 A. Well, if you recall, I used
13 the results from the bout class
14 regression to inform the -- the deflation
15 factor for the identity class as well.

16 Q. But the four -- the four
17 models we just described estimate damages
18 for the bout class rather than the
19 identity class; is that correct?

20 A. I think that when the model
21 appears -- when the write-up appears in
22 the bout class section it's speaking to
23 bout class, and when the model invoked in
24 the identity class section, it's speaking

Page 24

1 to the identity class.

2 Q. All right. There are two
3 econometric models that you use for
4 purposes of the common impact analysis,
5 am I correct about that?

6 MR. CRAMER: Objection to
7 form.

8 THE WITNESS: Can I hear
9 that back? I'm sorry.

10 (Pertinent portion of the
11 record is read.)

12 THE WITNESS: Are you -- I'm
13 going to interpret the question,
14 unless it's wrong, with now you're
15 referring to the bout class
16 subsection of the common impact?

17 BY MR. ISAACSON:

18 Q. Yes.

19 A. So I wouldn't -- I wouldn't
20 quite put it that way.

21 Q. All right. Well, let me ask
22 you. So if you look at page 151 of your
23 report, there's a section on Econometric
24 Evidence of a Compensation Structure?

Page 25

1 A. Yes, I see that section.

2 Q. And broadly speaking, the
3 first type of econometric evidence that
4 you looked at was you performed
5 regressions to determine whether gains or
6 losses in compensation amongst fighters
7 were broadly shared across the bout
8 class.

9 Do I have that right?

10 MR. CRAMER: You're asking
11 him to put aside the foreclosure
12 regression?

13 MR. ISAACSON: I'm just
14 talking about common impact, yes.

15 MR. CRAMER: Okay.
16 Objection, misstates the system.

17 THE WITNESS: As part of the
18 two-part proof of common impact,
19 the -- in the second part of the
20 proof, I used econometric methods
21 as well as records evidence to
22 demonstrate a pricing structure.

23 But I think that the
24 question assumes away the

<p style="text-align: right;">Page 34</p> <p>1 but-for world of a lower foreclosure 2 share, are you referring to the specific 3 foreclosure share that you would find in 4 one of your regressions as opposed to 5 some part of that, you know, say half of 6 it?</p> <p>7 MR. CRAMER: Objection to 8 form.</p> <p>9 THE WITNESS: I don't 10 understand the question. I'm 11 sorry.</p> <p>12 BY MR. ISAACSON: 13 Q. So -- and that's my fault, 14 but let me keep trying.</p> <p>15 The -- when you refer to the 16 but-for world of a lower foreclosure 17 share, do you mean the full lower 18 foreclosure share that would be specified 19 in whatever regression you're looking at 20 as opposed to some fraction of it?</p> <p>21 A. No, I wouldn't put it that 22 way.</p> <p>23 Q. So for example, if I was 24 looking at a -- just one of your</p>	<p style="text-align: right;">Page 36</p> <p>1 percentage.</p> <p>2 A. We're not going to have it. 3 But I keep hearing did I have it or did I 4 take a percentage of it. The answer is 5 no. I didn't -- I didn't do that. No 6 simulation halves the foreclosure share.</p> <p>7 There are three simulations: One 8 simulation projects what the fighter wage 9 shares would be at zero percent 10 foreclosure share, another simulation 11 projects what fighter wage shares would 12 be at 20 percent foreclosure levels, and 13 another simulation projects what fighter 14 wage shares would be at 30 percent 15 foreclosure.</p> <p>16 So I'm getting tripped up on 17 do I -- does the regression halve it. 18 The regression doesn't halve anything. 19 Halve as in cut in half. The regression 20 takes the data as it is, right?</p> <p>21 Q. Right.</p> <p>22 A. It understands the 23 relationships between foreclosure share 24 and wage share controlling for all</p>
<p style="text-align: right;">Page 35</p> <p>1 regressions and it specified a 2 foreclosure share, give me an example of 3 a foreclosure share.</p> <p>4 A. Well, the question -- I'm 5 just trying -- the regression doesn't --</p> <p>6 Q. Help me out and give me an 7 example of a foreclosure share, a number 8 that would express it.</p> <p>9 A. 90 percent.</p> <p>10 Q. Okay.</p> <p>11 A. It could have been 12 90 percent at a given point in time 13 depending upon the market definition used 14 and depending upon the weighting method 15 used.</p> <p>16 Q. Right.</p> <p>17 A. The actual foreclosure at a 18 given point in time could have been 19 90 percent, that would have entered in on 20 the right-hand side of regression, but as 21 we -- as we move to the but-for 22 world we're going --</p> <p>23 Q. Let me ask a question 24 because all I asked you for was a</p>	<p style="text-align: right;">Page 37</p> <p>1 other -- all other things, right, and 2 then it's done. Regression is done.</p> <p>3 The regression doesn't get 4 to say what the but-for world looks like. 5 I'm using the regression parameters to 6 project what fighter wage shares would be 7 in a but-for world in which the 8 foreclosure share was either zero 9 percent, 20 percent or 30 percent.</p> <p>10 Q. All right. The -- so if you 11 had a regression that specified a 12 foreclosure share of 90 percent, 13 depending on which model you were using, 14 your but-for world would have a 15 foreclosure percent of zero percent, 16 20 percent or 30 percent, do I have that 17 correct?</p> <p>18 A. No, you don't have it right.</p> <p>19 Q. Hum?</p> <p>20 A. You don't have it right. 21 I'm getting tripped up on the word if the 22 regression specifies a foreclosure share 23 of 90 percent.</p> <p>24 Q. Well, let me take that out</p>

Page 38

1 of the question then.

2 For each of your models, you
3 have a but-for world where the
4 foreclosure share for Zuffa is either
5 zero percent, 20 percent or 30 percent.

6 Do I have that right?

7 A. I think you've got that
8 right.

9 Q. Okay. And that's regardless
10 for what foreclosure is specified in the
11 regression?

12 A. I'm just -- I wish we could
13 use a different word than specified.

14 Q. What word would you use?

15 A. The regression doesn't get
16 to specify the foreclosure share, just as
17 the regression doesn't get to specify how
18 many punches a fighter threw, right, or
19 how many successful punches.

20 Q. Tell me what word you want
21 me to use.

22 A. So the regression takes the
23 data as the world presents it. The
24 regression doesn't get to specify.

Page 39

1 Q. Foreclosure is an output of
2 the regression?

3 A. No, it's an input. It's an
4 input.

5 Q. Okay. So --

6 A. But the regression doesn't
7 get to -- doesn't get to pick what
8 foreclosure is or specify it. Maybe I'm
9 misinterpreting what you mean by--

10 Q. I'm just trying to find a
11 word that you're comfortable with.

12 A. The regression takes the
13 data as the world presents it and looks
14 for relationships between those data.

15 Q. Right.

16 A. All right? So it doesn't
17 specify. The -- maybe what would be
18 helpful is that the market definition --
19 the market definition that I choose and
20 the weights that I apply generate a
21 measure of foreclosure share.

22 Q. Okay.

23 A. Right? And then I'm going
24 to apply a regression analysis. But the

Page 40

1 regression doesn't get to specify, the
2 regression takes the foreclosure share as
3 an input.

4 Q. So regardless of the measure
5 of foreclosure share that's generated by
6 any specific model, the world -- you are
7 going to assume for purposes of
8 estimating impact or damages that the
9 actual foreclosure share of Zuffa will be
10 zero, 20 percent or 30 percent depending
11 on the model?

12 MR. CRAMER: Objection to
13 form.

14 BY MR. ISAACSON:

15 Q. That's correct?

16 MR. CRAMER: Objection to
17 form.

18 THE WITNESS: It was close.

19 You said the model to start the
20 question, and just again to be --
21 to be specific, the regression --
22 the regression doesn't get to pick
23 the foreclosure share. The
24 foreclosure share flows from which

Page 41

1 market definition and which
2 weighting method I use, right?
3 That -- that will generate a
4 foreclosure share that gets spit
5 out, I think, of a Microsoft Excel
6 file, and that foreclosure share
7 is going to be spit out alongside
8 each observation in the dataset.

9 The regression finds a
10 relationship between that
11 foreclosure share and the
12 fighters' wage share controlling
13 for all other things and then the
14 regression is done.

15 At that point, I -- I can
16 make use of the parameters that
17 come out of the regression to
18 project what a fighter's wage
19 share would be in a but-for world
20 in which the foreclosure share was
21 lower.

22 Sorry, I'm being -- I'm
23 being attacked here by a gnat.
24 And -- thank you.

Page 42

1 And I use three different
2 scenarios: Zero percent,
3 20 percent and 30 percent.

4 BY MR. ISAACSON:

5 Q. Now, when you use a world in
6 which there -- Zuffa has zero percent
7 foreclosure, how does that translate into
8 any -- a market share for Zuffa?

9 A. Oh, it could accommodate
10 many different market shares for Zuffa.
11 It is -- one way of putting it is almost
12 agnostic to the market share. It
13 could -- it could accommodate many.

14 You can have -- just to be
15 clear, you can have a high market share
16 and zero foreclosure share if all of your
17 fighters are under, say, 12-month
18 contracts.

19 Q. And do I understand
20 correctly that if all the Zuffa fighters
21 were under 12-month contracts, you would
22 expect the foreclosure share of Zuffa to
23 be zero or close to zero?

24 MR. CRAMER: Objection to

Page 43

1 form.

2 THE WITNESS: So I -- I deem
3 a fighter to be foreclosed, or to
4 be working or employed pursuant to
5 an exclusionary contract if, as
6 you know, the contract is
7 exclusive and if the duration
8 exceeds a certain number of
9 months. I use 30 months I think
10 as my -- my baseline approach.

11 And so if you -- if you
12 allow me to use that 30-month
13 baseline or cutoff as a measure
14 for whether a fighter is
15 foreclosed, and if your question
16 posits that every Zuffa fighter
17 under contract is -- is at
18 12 months, then by construction,
19 12 months is less than 30 months,
20 and therefore, under that
21 particular measure of foreclosure,
22 no fighter would be foreclosed.

23 BY MR. ISAACSON:

24 Q. All right. Is there any --

Page 44

1 is there any measure of foreclosure where
2 a 12-month contract, in your opinion,
3 would not result in the zero or near zero
4 foreclosure?

5 MR. CRAMER: Objection to
6 form.

7 THE WITNESS: Let me hear it
8 back. But I don't think I
9 understood it, but let me just
10 hear it.

11 BY MR. ISAACSON:

12 Q. Well, because you just told
13 me about how your 30-month baseline, and
14 you confined your answer to that
15 particular measure of foreclosure.

16 And I'm asking you, is there
17 any measure of foreclosure where a
18 12-month contract for all Zuffa fighters
19 would not result in zero or near zero
20 foreclosure?

21 MR. CRAMER: Objection to
22 form.

23 THE WITNESS: Well,
24 certainly not if you use 30 months

Page 45

1 as the cutoff, but if -- if the
2 court, for example, were to deem
3 that 12 months with an
4 exclusion -- with an exclusive
5 arrangement were exclusionary,
6 then contracts with 12 months
7 would be exclusionary. It's
8 tautological. It depends on where
9 you draw the cutoff and what --
10 what conditions you require for --
11 for one to conclude that a
12 contract was exclusionary.

13 BY MR. ISAACSON:

14 Q. All right. So I'm not
15 asking you any questions about what
16 courts rule, I'm asking you questions
17 that come out of your models.

18 Is there any measure of
19 foreclosure in any of your models where a
20 12-month contract for all Zuffa fighters
21 would not result in zero or near zero
22 foreclosure?

23 MR. CRAMER: Objection to
24 form. Asked and answered.

1 THE WITNESS: I'd have to
2 think about it some more, but I
3 think I -- I think I gave you -- I
4 think I gave you what the answer
5 was, which is that it depends
6 on -- on how you draw the -- the
7 line.

8 BY MR. ISAACSON:

9 Q. All right. And how would
10 you define zero percent foreclosure? You
11 said some of your models assume zero
12 percent foreclosure. How do you define
13 zero percent foreclosure?

14 A. So no model assumes it.
15 Just to be clear, I'm projecting but-for
16 worlds in which the foreclosure share is
17 zero, 20 or 30 percent. But I'm
18 interpreting the question as how could
19 Zuffa get to zero percent foreclosure?

20 Q. Right. How would you define
21 Zuffa with zero percent foreclosure?

22 A. It can get -- you could get
23 to zero percent foreclosure in myriad
24 ways. So I'm not -- I'm not specifying

1 exactly how you get there. I can give
2 you examples, I think we just did, in
3 which the legal standard is 30 percent --
4 30 months -- sorry. If the legal
5 standard were 30 months and if counter-
6 factually all of -- well, and if Zuffa's
7 contracts all were 12-month contracts,
8 then the foreclosure share by my measure
9 would be zero percent.

10 But that's just one way.
11 There are -- there are many -- there are
12 many ways to get your foreclosure share
13 down. You can -- you can divest --
14 divest fighters and send -- send fighters
15 to a -- to an independent organization
16 thereby decreasing your market share and
17 thereby decreasing your foreclosure
18 share.

19 There's -- there are many
20 ways to get to -- to a lower foreclosure
21 share.

22 Q. All right. So can you give
23 me some other examples of ways that Zuffa
24 could get to zero percent foreclosure

1 share?

2 MR. CRAMER: I'm going to
3 object to the extent it calls for
4 a legal conclusion.

5 But you can answer.

6 And asked and answered.

7 THE WITNESS: I think I've
8 covered -- I've covered the basis.
9 I think that the most -- the most
10 obvious way to construct it is by
11 coming up with a baseline in terms
12 of number of months in which an
13 exclusive contract is deemed
14 exclusionary and positing a world
15 in which Zuffa's contracts come
16 under that -- that cutoff. They
17 could be 15 months long, they
18 could be 17 months long.

19 BY MR. ISAACSON:

20 Q. All right. And that cutoff
21 that needs to be posited, is that a legal
22 cutoff or is that a matter of economics?

23 MR. CRAMER: Objection to
24 form.

1 THE WITNESS: I think it is
2 ultimately a legal decision, but
3 it can be informed through
4 economics. I hope economics can
5 inform the law at times.

6 BY MR. ISAACSON:

7 Q. All right. You mentioned
8 reducing the baseline number of months
9 for the exclusive contracts, and you
10 mentioned divesting fighters to -- to an
11 independent organization from Zuffa.

12 Are there any other examples
13 that you can think of as to how Zuffa
14 could reach zero or near zero
15 foreclosure?

16 A. Sure. I can keep on coming
17 up with examples.

18 One example would be that
19 there's no exclusivity provision in the
20 contracts.

21 Q. All right. That's one. Are
22 there any other examples?

23 MR. CRAMER: Asked and
24 answered, form.

Page 50

1 THE WITNESS: I can't think
2 of others.

3 BY MR. ISAACSON:

4 Q. All right. Now, you do
5 define markets in your report at a high
6 level. Let me see if I've got what
7 you've got.

8 For input markets, you've
9 defined a tracked market by referring to
10 data from FightMetric -- FightMetrics
11 (sic) right?

12 A. I certainly use FightMetrics
13 (sic), but I prefer to say that I have --
14 I have a relevant input market and a
15 relevant input submarket, and I use two
16 different standard industry databases to
17 identify the fighters in the relevant
18 input market.

19 Q. Right.

20 A. One is FightMetric, the
21 other one is Fight Matrix. I'm very
22 upset about those names, but that's --

23 Q. Right, they're not helpful
24 to us.

Page 51

1 A. They're not helpful.

2 Q. But we'll live with them.

3 But -- so you have two
4 relevant input markets: A tracked market
5 which -- for which you draw data from
6 FightMetric, and a ranked market which
7 draws from data from Fight Matrix,
8 together with the data from FightMetric.
9 Do I have that right?

10 A. Again, I would prefer to say
11 there's one relevant input market that
12 we're -- that we're trying to measure and
13 I have two different ways of measuring
14 it. One relies on a database from
15 FightMetrics (sic), which I refer to as
16 the tracked method. That's -- that's
17 really the beginning, because as you
18 probably are aware, there's a few
19 additions that I tack on to -- to even
20 that measure.

21 And then as we move from the
22 tracked measure to the ranked measure,
23 I -- I include everybody who made it into
24 the tracked and I add on additional

Page 52

1 fighters who were ranked, but not
2 tracked, as well as one other MMA
3 organization.

4 Q. So those are two -- do I
5 understand it right, those are two
6 different relevant input markets that
7 you -- that you have defined?

8 A. This -- this could be a
9 matter of semantics, but I prefer to say
10 there's one relevant input market and
11 these are two different ways to measure
12 it.

13 Q. What is the one relevant
14 input market?

15 A. It's -- I think I've defined
16 it in the report.

17 Q. Feel free to point me in the
18 report.

19 A. Okay.

20 Q. If it helps you, the
21 relevant input market discussion is on
22 page 66.

23 A. Well, if we're going to call
24 it anything by shorthand, I would prefer

Page 53

1 to use the term relevant input market. I
2 think that the language in the report
3 explains what I'm trying to get at, which
4 is a set of fighters with MMA fighter
5 services that would be used by an MMA
6 promotion organization to stage live
7 events.

8 Q. You told me you preferred to
9 say there's one relevant input market and
10 there's two different ways to measure it.

11 What is the one relevant
12 input market?

13 MR. CRAMER: Asked and
14 answered.

15 THE WITNESS: These are --
16 these are MMA fighters who are
17 used as input to the production of
18 live MMA events.

19 And to clarify it, I said
20 two. Of course there's a --
21 there's a third -- a submarket. I
22 don't know if --

23 BY MR. ISAACSON:

24 Q. Yeah, we'll get to the

Page 54

1 submarket.

2 A. Okay.

3 Q. The -- all right. And the
4 submarket is the -- you used the
5 headliner definition; is that right?

6 A. Correct.

7 Q. And am I correct that in
8 your opinion, there would be no broader
9 market than the markets you have defined
10 using the tracked measure or the ranked
11 measure?

12 A. Correct, there's no broader
13 market. Already I think that the ranked
14 market is -- is potentially overly broad.

15 Q. And when you -- when you say
16 there's no broader market, that would
17 mean there's no reasonable substitutes
18 outside those markets if, for example,
19 fighter pay where to go up?

20 A. That's not quite what I
21 mean.

22 Q. Well, let me ask you this.
23 Then let me just ask you this question:
24 In your opinion, are there no reasonable

Page 56

1 SSNIP analysis, which is S-S-N-I-P.

2 But just returning to my
3 question, in your opinion, are there no
4 reasonable substitutes outside the
5 tracked market and the ranked market if
6 fighter pay goes up?

7 A. So that -- you haven't
8 posited the correct question for market
9 definition. It's not if fighter pay goes
10 up. It's -- the question is if -- if
11 Zuffa were to control a certain set of
12 fighters, could -- could Zuffa exercise
13 market power in the form of pushing wages
14 down? You keep saying if prices go up.
15 That's not the -- that's not market --

16 Q. I appreciate you telling me
17 I'm not asking the correct questions --

18 A. Well, I mean --

19 Q. But let's stick with --
20 let's stick with answering my questions.

21 A. Okay. Well, okay, but if
22 you ask me a question that makes no sense
23 as a matter of economics, I can't give
24 you an answer.

Page 55

1 out -- substitutes outside the tracked
2 market and the ranked market if fighter
3 pay rises?

4 MR. CRAMER: From what level
5 to what level?

6 MR. ISAACSON: It goes up.

7 MR. CRAMER: Okay.

8 THE WITNESS: So I do
9 allow -- before I answer the
10 question, I just want to make sure
11 you understand how I get to the
12 market. It's not entirely driven
13 by reasonable substitutes. I'm
14 asking -- I'm trying to employ the
15 SSNIP test from the merger
16 guidelines, and I'm looking for
17 the smallest set of fighters such
18 that a hypothetical monopsonist
19 could exercise market power.

20 And that -- that is the
21 question that -- that drives the
22 analysis.

23 BY MR. ISAACSON:

24 Q. And I'll ask you about your

Page 57

1 Q. In your opinion -- in your
2 opinion, are there no reasonable
3 substitutes for the fighters outside the
4 tracked market and outside the ranked
5 market?

6 A. I would put the caveat that
7 if a hypothetical monopsonist controlled
8 all of the fighters in either of those
9 two markets, it would be able to
10 successfully exercise a wage suppression
11 below competitive levels without having
12 to fear that a sufficient number of
13 fighters inside of its net would -- would
14 substitute to something outside of the
15 net.

16 And that's a long way of
17 answering your question, but I think
18 doing so more precisely as to what is
19 considered reasonable.

20 If you -- if you have, say,
21 all of the ranked fighters, and you're
22 looking at it from the perspective of a
23 given ranked fighter, let's suppose a
24 highly ranked fighter, he or she will not

Page 70

1 offered alternative methodologies, they
2 all point to numbers that create a range,
3 and I think that -- that any one of them
4 would be a reasonable estimate of
5 damages.

6 Q. And within that range, every
7 number within that range you consider to
8 be reasonable, correct?

9 MR. CRAMER: Objection to
10 form. Misstates the testimony.

11 THE WITNESS: No, because
12 I -- I don't want to pick some
13 number that's -- that's -- that
14 just is randomly chosen between
15 two of my estimates.

16 BY MR. ISAACSON:

17 Q. All right. That's fair.

18 So every -- you've -- you've
19 estimated a range of damages. Every
20 number within that range that you've
21 estimated, you would consider a
22 reasonable award of damages in this case?

23 MR. CRAMER: Form.

24 THE WITNESS: Every number

Page 71

1 associated with one of my damages
2 methodologies represents a
3 reasonable estimate of aggregate
4 damages.

5 BY MR. ISAACSON:

6 Q. All right. And amongst the
7 numbers associated with one of your
8 damages methodologies, you do not have an
9 opinion as to which one is more or less
10 appropriate as an award of damages; is
11 that correct?

12 MR. CRAMER: I'm going to
13 object to the extent it calls for
14 a legal conclusion.

15 THE WITNESS: I don't think,
16 at least sitting here today, I'm
17 prepared to speak to which is more
18 or less appropriate. They can be
19 evaluated on other dimensions such
20 as more or less conservative. But
21 more or less appropriate, I'm --
22 I'm not even sure I understand
23 what that means.

24 BY MR. ISAACSON:

Page 72

1 Q. Okay. You mentioned the --
2 you mentioned the FightMetric database
3 which is used in connection with your
4 tracked input market as well as your
5 ranked input market. FightMetrics (sic)
6 is a service that promotions pay to --
7 pay FightMetric for; is that right?

8 A. I think that a promotion can
9 subscribe and purchase the FightMetrics
10 (sic) data. I know, for example, that
11 Zuffa uses it in its day-to-day business
12 operations.

13 Q. Is it the case if you do not
14 subscribe, if you don't pay, that you're
15 not on FightMetric?

16 A. That is not my
17 understanding.

18 MR. ISAACSON: Can we mark
19 this as Exhibit 4?

20 (Exhibit No. Singer-4, Excel
21 spreadsheet, Weight Data for
22 Foreclosure Shares, was marked for
23 identification.)

24 BY MR. ISAACSON:

Page 73

1 Q. Exhibit 4 is a backup file
2 we were provided. It's titled Weight
3 Data for Foreclosure Shares. We've
4 printed out a tab called Combined Event
5 Tab. We've not altered the content, but
6 in order to have the columns fit on one
7 page, we rotated the first row to make
8 the column names vertical, and we also
9 added page numbers and shrunk the columns
10 to fit the content.

11 MR. CRAMER: Which did you
12 add?

13 MR. ISAACSON: We did add no
14 content. We -- we did some things
15 to make it fit on the page.

16 MR. CRAMER: You said you
17 added combined --

18 THE WITNESS: No, I think he
19 said he rotated the titles, the
20 headers of the columns so that it
21 would fit.

22 MR. CRAMER: Thank you.

23 BY MR. ISAACSON:

24 Q. Now, as I understand this,

Page 74

1 this would be pay-per-view revenue data
 2 that you relied on when you did your
 3 foreclosure regression?

4 A. It depends on which
 5 weighting technique I used, right? I've
 6 done three different weighting
 7 techniques: The revenue weighted, the
 8 ranked weighted and unweighted.

9 Q. Okay. So this would be the
 10 data that you used when you weighted by
 11 revenue; is that correct?

12 A. I believe so.

Page 76

23 Q. The -- now, looking down the
 24 column called Gate. You have some

Page 75

Page 77

1 entries, but a lot of entries where it's
 2 blank. And am I correct that where you
 3 did not have actual data for the gate,
 4 you used some sort of average?

5 A. Well, I wouldn't put it that
 6 way.

7 Q. Okay. How would you put it?

8 A. I would say that I computed
 9 an average across a year for a given --
 10 for a given promoter, and if there was a
 11 blank in the field, the blank, by
 12 construction, could not inform the
 13 average.

14 Q. I just asked you if you used
 15 an average, but okay.

16 You did use -- where the
 17 field was blank for gate, you used an
 18 average across a year for the given
 19 promoter?

20 A. I believe that's the rule.
 21 I'd want to go back and check that, but I
 22 believe that we calculated an average
 23 revenue per event, per fighter across the
 24 promotion within a given year for

1 whatever data we had, and that became the
2 weight under the revenue weighting
3 method.

4 Q. And some of these not only
5 were blank, some of them have question
6 marks. When there were question marks,
7 you were applying the average as you
8 described it, correct?

9 A. That sounds reasonable. I'd
10 have to -- I'd have to -- I'd want to
11 double-check on that, but that sounds
12 like a reasonable rule, and I'll leave it
13 at that.

[REDACTED]

20 Q. All right. Now, the data
21 that you have for revenue is limited
22 to -- I'm sorry, the data that you used
23 for revenue was limited to pay-per-view
24 and gate revenue; is that correct?

1 A. For the purpose of this part
2 of the report, which is the revenue
3 weighting method, I believe those are the
4 components that informed the average
5 revenue per event, per fighter.

6 Q. All right. So if a promoter
7 such as Bellator received television
8 money other than pay-per-view, that would
9 be excluded from this, is that correct?

10 A. If -- if we had data from
11 Bellator from something like television
12 revenue, that -- the problem is that -- I
13 guess I'm stumbling on the question. I
14 don't see how you get television revenue
15 with respect to one event. You would
16 sign a television contract that would
17 cover a range of events. I'll leave it
18 at that.

19 Q. Okay. But in terms of doing
20 this foreclosure, this weighting -- this
21 revenue weighting for foreclosure shares,
22 you excluded money received from
23 television networks by promoters such as
24 Bellator, correct?

1 MR. CRAMER: Objection to
2 the form.

3 THE WITNESS: Well, to the
4 extent we did, we would have
5 treated all promotions the same;
6 that is, we didn't -- we didn't
7 count box revenues for UFC and
8 ignore television revenue -- non-
9 pay-per-view television revenue
10 for some other promoter. We would
11 have applied a -- a consistent
12 rule across all promoters.

13 BY MR. ISAACSON:

14 Q. But that was the rule you
15 did apply was to exclude the television
16 revenue?

17 A. I think that -- I think
18 that's correct. I think again, if you --
19 if you think about what we were trying to
20 do, we were trying to figure out what --
21 what revenue was being generated at the
22 margin, what is -- what is truly
23 incremental created by that event, and so
24 it's hard to take a lump sum or a fixed

1 source of revenue and -- and attribute
2 some portion of that to an event.

3 Q. All right. The pay-per-view
4 numbers here, are these actual numbers?

5 A. I believe -- I believe
6 they're actual. I believe -- let me put
7 it this way: They were the best
8 estimates we could get in the data -- in
9 the record.

10 Q. All right. Do you know
11 where they came from?

12 A. Not off the top of my head,
13 but I'm fairly confident that in the
14 report I tell you where it comes from.

15 Q. Okay. The gate numbers, are
16 those estimates?

17 A. That -- that sounds
18 reasonable. That sounds reasonable.

19 Q. And do you know how you did
20 the estimates?

21 A. I listed the source in the
22 report. I'm -- sitting here, I'm having
23 a hard time recalling if it came from
24 Zuffa or if it came from some third

Page 98

1 Q. You have not done any impact
2 models or damages models where you --
3 where you use as an input the actual
4 amount of fighter pay as opposed to the
5 fighter share?

6 A. I don't think that's true.
7 I have -- in my impact section, I've run
8 a model on levels, not related to
9 foreclosure share, but levels of fighters
10 compared to what other fighter were being
11 paid.

12 But if you're asking have
13 I -- have I run a model that relates
14 foreclosure share to the levels, I have
15 not done that.

16 Q. All right. I think I
17 understand you, but let me get it
18 straight.

19 You have not run any models
20 that establish the -- that establish the
21 fact of injury or the amount of damages
22 that rely on the actual salaries that
23 are -- not salaries, the actual
24 compensation paid to fighters as opposed

Page 99

1 to the fighters' share?

2 MR. CRAMER: Objection to
3 form.

4 THE WITNESS: No, I'm going
5 to -- I'm going to say no to that
6 one. I thought I just clarified.

7 BY MR. ISAACSON:

8 Q. Just say no and I'll ask you
9 a follow-up question.

10 A. Fine. No.

11 Q. The -- when you look at
12 actual fighter pay, that's when you
13 were -- when you used actual fighter pay
14 as opposed to fighter share, that's when
15 you performed regressions to determine
16 whether gains or losses in a compensation
17 were broadly shared across the bout
18 class, correct?

19 A. Correct, as part of an
20 impact model.

21 Q. Right. And does that model
22 generate an amount of impact or amount of
23 damages?

24 A. No, that model was to

Page 100

1 establish the fact of common impact.

2 Q. And the results showed that
3 individual fighter compensation per event
4 moves together with per event
5 compensation paid to other fighters; is
6 that correct?

7 A. Yes.

8 Q. Okay. And while it
9 establishes that the compensation moves
10 together, the output of that model does
11 not actually demonstrate injury to any
12 specific fighter; is that correct?

13 MR. CRAMER: Objection to
14 form.

15 THE WITNESS: I would say
16 the output of that model in
17 conjunction with other steps in
18 that two-part proof show impact to
19 all fighters.

20 BY MR. ISAACSON:

Page 101

Page 102

A. This analysis must be understood in conjunction with other analyses in the section, the totality of which establishes common impact.

Q. I agree with that. What I'm saying is this -- this model by itself would not show any injury to any specific fighter, it would have -- it would have to be considered in conjunction with other analysis that you've done?

A. I think that's fair. I would not -- I would not offer this model by itself as proof of common impact. I would offer it, as I did, in conjunction with other models in the section, and record evidence, of course.

Q. Right. So the models that actually conclude by themselves that there was damage or impact to individual fighters are all expressed in terms of fighters' share and don't rely on data but actual fighter pay; is that correct?

Page 103

MR. CRAMER: Objection to form.

THE WITNESS: No, that's not correct.

BY MR. ISAACSON:

Q. The models that show actual impact or damages by themselves all are expressed in terms of the fighters' share of revenue, correct?

A. I wouldn't put it that way either.

Q. Okay. For each of those models you were looking at what the fighter share of revenue actually was compared to what it would be in the but-for world using the models that you've relied on, correct?

A. For certain models, the left-hand side variable of the regression was expressed in terms of fighter share as opposed to absolute level.

But I want to make clear for the record that the numerator is the fighters' pay. So when you say the

Page 104

models aren't taking into consideration the fighters' pay, I have to -- I have to -- I have to reject that.

Q. All right. So there is a variable in each of your impact models and damages models that actually estimate a dollar effect on fighters that relies on the fighters' share as opposed to the absolute level of compensation of the fighter. Do I have that right? What you call the variable on the left-hand side.

A. Yeah, the dependent variable in certain models is expressed in terms of fighter's share, and to figure out what the effect is on a fighter's absolute pay, it's a ministerial change to convert from an actual fighter share to a but-for fighter's share, and then knowing what the event revenue was to convert to a but-for fighter pay.

So I think that -- I think that to say that it's -- it's not making use of actual fighter pay just misses what's -- what's going on.

Page 105

Q. All right. So on page 155, Table 8.

A. Okay.

Q. Which reports on a regression you did for impact. The dependent variable there was the fighter's share of revenue rather than the absolute level of compensation, am I correct?

A. Correct.

Q. Okay. And the same would be true for each of the regressions in your damages models; is that correct?

A. I believe that's fair, that the dependent variable in those models was fighter share of revenues.

Q. I'm going to take a big chance here and ask if you can explain for our audience what you mean by a dependent variable.

A. Sure. So the dependent variable is the variable that we are trying to understand and explain what -- what drives it to -- to move around. And

Page 106

1 so we -- you'll also hear the expression
2 the left-hand side variable, but -- but
3 it's -- it's the variable of interest.
4 We are -- we are trying to -- to
5 understand the world through -- through
6 that variable and to explain what causes
7 it to vary.

8 Q. All right. So I'd like -- I
9 think variable of interest is a phrase
10 you use in your report, and I guess it's
11 also comfortable calling it a dependent
12 variable for a layperson, the variable
13 we're trying to explain. Both of those
14 would be acceptable?

15 A. Sure.

16 Q. Okay. The --

17 THE VIDEOGRAPHER: We're ten
18 minutes left on this tape,
19 Counsel.

20 MR. ISAACSON: All right.
21 We'll go about five more minutes
22 and take a break.

23 BY MR. ISAACSON:

24 Q. Have you done damages

Page 107

1 analysis before where you had used the
2 percentage of -- the percentage of
3 revenue as opposed to the absolute level
4 of compensation as the variable of
5 interest?

6 A. It's possible. Sitting here
7 I'm thinking of another -- of another
8 wage case that I did, which was -- which
9 I refer to as Arizona Travel Nurses, and
10 it's possible that we -- when we did our
11 modeling there, we expressed -- in fact,
12 it's kind of coming back to me. I think
13 we were interested in a nurse's payment
14 relative to her bill rate. So -- so yes,
15 I believe I've -- I've done something
16 like that before.

17 Q. You say something like that,
18 have you done -- have you used as the
19 variable of interest before the share of
20 total revenue that goes to the labor
21 force, whether that labor force is an
22 employee or -- or contractors?

23 A. I think so.

24 Q. Okay. And you think you did

Page 108

1 that in Arizona Travel Nurses?

2 A. Yeah, it's an old case, but
3 I -- some -- some faint memories are
4 coming back, and I -- I believe that
5 to -- to establish similar things, common
6 impact there, we were -- we were looking
7 at the bill rate as the denominator,
8 that's how much the hospital was -- was
9 charging for the -- for the nurse, and
10 the numerator was the wage that went to
11 the -- to the nurse, and so it's an
12 analogous construction of a dependent
13 variable.

14 Q. Any other cases that you --
15 where you've estimated damages using the
16 variable of interest or the dependent
17 variable as the share to labor?

18 A. I'm not sure. I'm not sure
19 how many other wage suppression cases
20 I've done besides -- besides these two.
21 I'd have to -- I'd have to go back and
22 think about it.

23 Q. Okay.

24 MR. ISAACSON: All right.

Page 109

1 Why don't we take a break?

2 MR. CRAMER: Sure.

3 THE VIDEOGRAPHER: The time
4 is 11:26 AM. We are going off the
5 record, and this is the end of
6 Disk 1.

7 (Recess.)

8 THE VIDEOGRAPHER: The time
9 is 11:40 AM. This is the start of
10 Disk 2, and we are now on the
11 record.

12 BY MR. ISAACSON:

13 Q. So I want to continue our
14 discussion of the percentage of revenue
15 paid to labor as the variable of
16 interest.

17 Is there economic literature
18 that you're familiar with that discusses
19 the percentage of revenue that's paid to
20 labor in a competitive industry as
21 opposed to an industry that's less
22 competitive?

23 A. Is there economic
24 literature?

Page 110

1 Q. Yes.

2 A. Yes. I would say that
3 the -- the application of micro theory to
4 labor markets posits that in a
5 competitive market, a laborer captures
6 100 percent of their marginal revenue
7 products. So it's natural to express the
8 dependent variable here as -- as labor
9 share of revenue.

10 Q. All right. And I'll return
11 to my -- you said that about
12 microeconomic theory in your report and
13 I'll return to that, and I understand
14 that that's included within your answers.
15 But is there any actual economic
16 literature that you're aware of that
17 discusses what are the actual percentages
18 of revenue paid to labor in a competitive
19 industry as opposed to a less competitive
20 industry?

21 A. Sure. I've cited various
22 texts, but I would take you just to a
23 basic elementary micro text to look at
24 where labor's share of revenue should

Page 111

1 go -- labor's share of its marginal
2 revenue product should go in a
3 competitive versus a noncompetitive
4 industry.

5 Q. All right. Maybe you're
6 misunderstanding me. I understand that
7 you're saying that microeconomic
8 literature and textbooks would express
9 that labor should capture 100 percent of
10 their marginal revenue product.

11 What I'd like to know, is
12 there any actual literature that
13 discusses, for any specific industries,
14 what percentages of -- what percentages
15 of revenue are paid to labor in a
16 competitive industry as opposed to a less
17 competitive industry?

18 A. I believe I cite to -- to
19 various articles in the literature, but
20 the notion of a wage share is commonly
21 used throughout labor economics.

22 Q. And are there studies where
23 actual wage shares, as you say -- as you
24 call them, are discussed in specific

Page 112

1 industries?

2 A. I believe so.

3 Q. Okay. Can you tell me any
4 of those studies or industries that I
5 should be looking for?

6 A. I don't know if sitting here
7 I'm going to be able to tell you specific
8 industries, but it's possible that I have
9 some citations to it already.

10 But I -- I think that the
11 concept of -- of labor's share of his or
12 her marginal revenue product is the
13 foundation of labor economics. It's
14 going to be something that is widely
15 researched and studied in the abstract
16 and in particular industries.

17 Q. Can you identify for me any
18 peer-reviewed literature that looks at
19 labor's share of revenues in estimating
20 damages, either for an antitrust case
21 or -- antitrust situation or any other
22 situation?

23 MR. CRAMER: Form.

24 MR. ISAACSON: Okay. Let me

Page 113

1 rephrase it.

2 BY MR. ISAACSON:

3 Q. Can you identify for me any
4 peer-reviewed literature looking where --
5 at the labor's share of revenues as valid
6 or reliable for estimating damages?

7 MR. CRAMER: Form.

8 Answer it if you understand
9 it.

10 THE WITNESS: So the notion
11 that an economist is going to be
12 writing about damages
13 methodologies would only show up
14 in a very applied and practical
15 journal. Say something like the
16 Antitrust -- something that's put
17 out by the ABA antitrust section.
18 I don't -- I don't think damages
19 is a topic that is going to get a
20 lot of attention by -- by
21 economists in peer-reviewed
22 journals outside of some -- some
23 kind of practitioner guide.

24 BY MR. ISAACSON:

Page 114

1 Q. All right. Let me try it
2 this way then. Can you identify any
3 peer-reviewed literature looking at
4 labor's share of revenues as the variable
5 of interest in determining
6 anticompetitive impact?

7 MR. CRAMER: Form. Asked
8 and answered.

9 THE WITNESS: I don't know
10 if I'm -- if I'm going to be able
11 to call up names of particular
12 articles off the top of my head,
13 but I can tell you that -- that
14 the wage share of marginal revenue
15 product is the way that you
16 understand competition in
17 competitive labor markets and how
18 you understand the opposite.

19 BY MR. ISAACSON:

20 Q. All right. The -- and I
21 think -- and I'll come to that subject
22 right now, but right now you can't tell
23 me any peer-reviewed literature that
24 looked -- that analyzes anticompetitive

Page 115

1 impact by looking at labor share of
2 revenues; is that right?

3 MR. CRAMER: Asked and
4 answered.

5 THE WITNESS: I believe I've
6 cited some in my report, but
7 sitting here I can't -- I can't
8 tell you a particular article.

9 BY MR. ISAACSON:

10 Q. All right. If you look at
11 page 120 of your report, footnote 454?

12 A. Yes.

13 Q. You talk about elementary
14 economics which shows that competitive
15 firms paid labor a share of revenue
16 commensurate with labor's productivity
17 based on a marginal product to labor.

18 That's the principle that
19 you were just discussing with me?

20 A. Yes.

21 Q. Is that right?
22 And -- now the marginal
23 revenue product labor is the value of the
24 additional output created when a firm

Page 116

1 adds a worker, am I correct?

2 A. I think that's a fair -- a
3 fair concept.

4 Q. And is it -- is it correct
5 that standard economics would predict
6 that a worker's compensation would be
7 equal to that marginal revenue product of
8 labor?

9 A. In a competitive
10 environment, the labor's share of his or
11 her marginal revenue product tends
12 towards higher values, and the limit
13 would -- would approach his or her
14 marginal revenue product.

15 Q. And in a competitive
16 environment, standard economics would say
17 that the -- actually, let me start over.

18 When you expressed that
19 marginal revenue product is labor or
20 wages, do you ordinarily do that in
21 dollar terms or in a fraction of the
22 firm's revenue?

23 MR. CRAMER: Objection to
24 form.

Page 117

1 THE WITNESS: Do I
2 ordinarily do it? I'm sorry, I'm
3 just not following.

4 BY MR. ISAACSON:

5 Q. How about in standard
6 economics?

7 MR. CRAMER: Same objection.

8 THE WITNESS: I think that
9 in standard economics you would
10 put the wage in the numerator and
11 you'd put the marginal revenue
12 product in the denominator.

13 BY MR. ISAACSON:

14 Q. And the marginal revenue
15 product would be expressed as a dollar
16 value?

17 A. Yes.

18 Q. And do economists ordinarily
19 measure the productivity of the
20 additional output -- well, let me put it
21 differently.

22 Do economists generally
23 measure the productivity created when a
24 firm adds a worker in dollar terms as

Page 118

1 opposed to as a percentage of revenue?

2 MR. CRAMER: Objection to
3 form, to generally. For what
4 purpose?

5 THE WITNESS: A firm could,
6 if a firm bills -- if a law firm
7 bills an associate out at \$400 an
8 hour, it could express what the --
9 what the young lawyer's salary on
10 an hourly basis is as a -- under
11 an assumed utilization rate as a
12 percentage of that young lawyer's
13 bill rate.

14 BY MR. ISAACSON:

15 Q. And are you aware of any
16 studies which express the marginal
17 revenue product of labor in terms of the
18 percentage of revenue of the firm?

19 A. I'm not aware, but as you've
20 expressed it, that's not quite what I'm
21 doing either.

22 Q. Now, in terms of -- did you
23 make any effort to measure the marginal
24 revenue product of labor of UFC fighters?

Page 119

1 A. Yes.

2 Q. Okay. And what would you
3 point to me for that?

4 A. What I did, which is I -- I
5 calculated the average revenue per event,
6 per fighter, and I'm using that as a
7 proxy for the marginal revenue product.

8 Q. All right. If the
9 average -- when you look at the average
10 revenue per event, per fighter, how do
11 you determine what part of that revenue
12 is the contribution of the fighter as
13 opposed to, for example, marketing,
14 promotions, production or the work of the
15 overall firm?

16 A. So for my purposes, I don't
17 need to figure out that -- that
18 decomposition. I will note, however,
19 that I cite a study in my literature
20 review section that suggests that the
21 fighter is responsible for, if not all,
22 the vast majority of -- of the
23 pay-per-view revenues that are captured
24 and not the brand.

Page 120

1 Q. Well, I didn't ask about the
2 brand.

3 The -- you would agree --
4 you would agree with me that effective
5 marketing and promotion could increase
6 the average revenue per event, correct?

7 A. Yes.

8 Q. And you would agree with me
9 that super- -- improving television
10 production can increase the average
11 revenue per event?

12 MR. CRAMER: All things
13 equal?

14 MR. ISAACSON: Yes.

15 THE WITNESS: I'm not sure
16 what -- what you mean by improving
17 television production.

18 BY MR. ISAACSON:

19 Q. A better production that
20 people enjoy more.

21 MR. CRAMER: Objection to
22 form.

23 THE WITNESS: And you're
24 asking me if I can conceive of

Page 121

1 this as a matter of theory?

2 BY MR. ISAACSON:

3 Q. Yes.

4 A. As opposed to whether it
5 actually happened?

6 Q. Yes.

7 A. I think I'm -- I'm going to
8 grant you that as a matter of theory one
9 could -- one could add value by
10 increasing the quality of the production.

11 Q. Okay. Now, in this case,
12 you did not do an actual study yourself
13 of the contribution of the UFC fighters
14 to the average revenue per event; is that
15 right?

16 MR. CRAMER: Asked and
17 answered.

18 THE WITNESS: I think that's
19 correct. As I noted a few moments
20 ago, that was not necessary for my
21 purposes.

22 BY MR. ISAACSON:

23 Q. By using the average revenue
24 per event, per fighter as a proxy, were

Page 150

1 Q. All right. Let's talk about
2 the non-headliners.

3 So in your inverse ranking
4 method, the number 100 fighter would be
5 worth six times that of the number 600
6 fighter?

7 A. Sure.

8 Q. And what in the record shows
9 that magnitude of difference in value?

10 A. Oh, I think that you can go
11 to -- so we have a lot of evidence that
12 speaks to qualitatively the difference in
13 value, and I think what you're pressing
14 on is quantitatively.

15 Q. Yes.

16 A. Right? Well, I just want to
17 make sure that --

Page 152

Page 151

Page 153

23
24

Q. All right. So for some of
your models you used a foreclosure share

Page 170

Page 172

Page 171

Page 173

Page 174

Q. The -- would another factor that would increase the foreclosure share for the revenue weighted measures be increased revenue generated by Zuffa compared to its competitors?

MR. CRAMER: Objection to form. Incomplete hypothetical.

THE WITNESS: I can say that holding all things equal, Zuffa's market share, the share of Zuffa fighters who are fighting pursuant to an exclusionary contract, that under the revenue weighting based measure, and only under the revenue weighting based measure of foreclosure, would an increase in the relative revenues per event, per fighter for Zuffa cause the foreclosure share to increase.

Page 175

BY MR. ISAACSON:

Q. And for the revenue weighted foreclosure measures, holding all other things equal, if Zuffa increased the number of events it was holding during the year, that would increase its foreclosure share, am I right about that?

A. Well, I have to -- I have to add again a bunch more to the hypothetical to be able to say whether an added event would change the foreclosure share. But I can't answer the hypothetical as you've -- as you've stated it.

Q. Well, for the revenue weighted foreclosure events, holding -- foreclosure measures, holding all other things equal, if Zuffa increased the number of events that earned revenue, its foreclosure share would increase; is that correct?

A. I would need to add more -- more layers to the hypothetical. So I guess I would say I can't -- I just can't

Page 176

answer that question.

Q. Well, what would be a reason that, assuming Zuffa did increase the number of events and all other things were held equal, its foreclosure share would not increase?

MR. CRAMER: Asked and answered. Form.

Go ahead.

THE WITNESS: For example, if -- if that fighter fought pursuant to a non-exclusionary contract in that new event, then that fighter would not make it into the numerator of the -- of the foreclosure share.

BY MR. ISAACSON:

Q. Okay. Any -- any other reasons you can think of?

A. I think you have to specify what's happening to the non-Zuffa events around the time that you're taking the measure. So the mere advent of a Zuffa event doesn't necessarily increase the

Page 177

foreclosure shares.

Page 178

Page 180

1 conduct, I'm assuming that in a
2 but-for world these vertical
3 restrictions in the fighter
4 contracts that impose exclusivity
5 and duration of a certain extent
6 would disappear.

7 Now -- with one caveat, and
8 it's important, is that when I go
9 to, say, a 30 percent foreclosure
10 level, so long as a small enough
11 share of Zuffa fighters, given its
12 market share, were fighting
13 pursuant to one of these contracts
14 with 30-month duration or more,
15 you could, you could make that
16 consistent with a but-for
17 foreclosure share of 30 percent.

18 BY MR. ISAACSON:

19 Q. Okay. And in your but-for
20 world -- let me ask you this. What do
21 you mean by the but-for world in this
22 circumstance?

23 A. Well, it is a -- it is a
24 world -- it's a more competitive labor

Page 179

Page 181

1 market, a world with fewer restrictions
2 on labor mobility.

3 Q. So in estimating impact and
4 damages, you have estimated the world --
5 you compared the world as it is to a
6 world that would have more competitive --
7 a more competitive labor market for UFC
8 fighters; is that correct?

9 MR. CRAMER: Objection to
10 form.

11 THE WITNESS: My -- my
12 construction of but-for world in
13 this regression model, is -- is
14 envisioning a world in which the
15 restrictions on fighter mobility
16 are lessened sufficiently so as to
17 permit 30, 20 or zero percent
18 foreclosure shares, and there's a
19 lot of ways that you can get
20 there.

21 BY MR. ISAACSON:

22 Q. And by fighter mobility, you
23 mean the ability to work for different
24 promoters; is that right?

8 Q. All right. Now, if I
9 understand your answers earlier today, in
10 estimating damages and impact, you have
11 proposed a world where there would be,
12 depending on the model, a zero,
13 20 percent or 30 percent foreclosure, but
14 in those worlds you're not assuming any
15 specific market share or any specific
16 conduct by Zuffa; is that right?

17 MR. CRAMER: Objection to
18 form, misstates the testimony.

19 THE WITNESS: You put
20 something at the end that's
21 causing me to pause.

22 I did testify earlier that
23 I'm not assuming any particular
24 market share. With respect to the

1 A. An impediment to mobility or
2 restrictions that preclude you from --
3 from working for rivals or for shopping
4 your contract around or testing your
5 market value.

6 Q. When you say a but-for
7 world -- you've done a comparison of the
8 real world to the but-for world, you've
9 estimated the world -- you compared the
10 world as it is to a world with more
11 mobility in the MMA labor market.

12 A. I think in very broad terms
13 that's what I'm trying to get at. And
14 mathematically the way that I express
15 that is a world in which Zuffa's
16 foreclosure share is 30 percent,
17 20 percent or zero percent.

[REDACTED]

[REDACTED]

10 Q. All right. The -- and I
11 think you told me also this morning that
12 you're not assuming -- in terms of market
13 share in the world with more mobility,
14 your but-for world of zero, 20 percent or
15 30 percent foreclosure, Zuffa could have
16 a very high market share; is that right?

17 A. Absolutely.

18 Q. Right. And could Zuffa have
19 a market share of 90 percent and still
20 have a foreclosure of zero?

21 A. Yes.

22 Q. And you're not predicting
23 what Zuffa's market share would be in a
24 world with zero percent foreclosure?

Page 186

1 A. I'm not predicting a precise
2 number for what Zuffa's market share
3 would be in that but-for world.

4 Q. And you are not predicting
5 with a zero percent foreclosure, for
6 example, how many competitors there would
7 be in the marketplace?

8 MR. CRAMER: Objection to
9 form.

10 THE WITNESS: I don't think
11 so, no.

12 BY MR. ISAACSON:

13 Q. Okay. And you are not
14 predicting with zero percent foreclosure
15 your but -- one of your but-for worlds
16 the market share of any competitor -- of
17 any competitor or potential competitor,
18 correct?

19 A. Correct.

20 Q. And do you consider the
21 markets you defined to have high barriers
22 to entry other than any of the acts of
23 Zuffa you've identified?

24 A. I have a section titled

Page 187

1 Natural Barriers to Entry, and so I
2 think -- I think there are some. They
3 are important and they would exist in the
4 but-for world as well.

5 I think that in this case,
6 the artificial barriers to entry are more
7 important, they're more economically
8 significant than the natural barriers to
9 entry.

10 Q. All right. And do you
11 consider the natural barriers to entry in
12 this case to represent high barriers to
13 entry?

14 A. They're barriers. They
15 are -- they're not trivial, they're
16 economically significant, and you saw
17 what I -- what I think of them in the
18 paragraph that I discuss them in.

19 Q. I haven't met an economist
20 yet who hasn't used the phrase high
21 barriers to entry.

22 A. Who hasn't?

23 Q. Who hasn't used it at some
24 point or the other.

Page 188

1 A. Oh.

2 Q. I assume you've used the
3 phrase at some point or the other?

4 A. Of course I have. I've
5 done -- I've done many antitrust cases.

6 Q. Sure.

7 A. So I have to.

8 Q. So do you consider the
9 natural barriers to entry here to be high
10 barriers to entry?

11 A. I think they're --

12 MR. CRAMER: Asked and
13 answered.

14 THE WITNESS: Yeah, I like
15 putting it this way.

16 MR. ISAACSON: Asked, but
17 not answered.

18 MR. CRAMER: Well --

19 THE WITNESS: What's
20 important. I mean, I'm going --
21 I'm going to give you an answer,
22 but we can't lose sight of the
23 fact when we're doing an indirect
24 approach to -- to product -- to

Page 189

1 market power, we're asked to look
2 at high shares and relevant market
3 and high barriers to entry. They
4 don't have to all come from
5 natural barriers to entry, it can
6 be a combination of natural
7 barriers to entry and artificial
8 barriers to entry.

9 In this case, I think the
10 natural barriers to entry are
11 significant, but on a relative
12 basis, I think they're -- they're
13 less important than are the
14 artificial barriers to entry.

15 BY MR. ISAACSON:

16 Q. You've told me several times
17 that you consider the artificial barriers
18 to be more important than the natural
19 barriers. Standing alone, are the
20 natural barriers to entry here high
21 barriers to entry?

22 MR. CRAMER: Objection to
23 form, asked and answered.

24 THE WITNESS: So perhaps

Page 206

1 when you go to damages, if you
2 remove the vertical restrictions
3 and fighters start fleeing, USC
4 and going instead to Bellator,
5 where does the UFC go in terms of
6 its wage share? That's the
7 relevant question.

8 BY MR. ISAACSON:

9 Q. All right. I sometimes have
10 other questions even if you deem them
11 irrelevant, so I'm going to ask them.

12 The -- when you do a
13 yardstick analysis between two firms to
14 determine damages or an anticompetitive
15 effect, should the two businesses be
16 comparable in all important respects
17 other than the competition differences?

18 MR. CRAMER: Objection,
19 asked and answered three times.

20 MR. ISAACSON: He didn't
21 answer it.

22 MR. CRAMER: He did.

23 THE WITNESS: I don't think
24 it's necessary that they be

Page 207

1 comparable in all respects. I
2 mean, here's the problem, here --

3 BY MR. ISAACSON:

4 Q. I didn't say in all
5 respects.

6 A. You did say all.

7 Q. I said all important
8 respects.

9 A. All important respects.
10 Sometimes you're not going to get that.
11 And here, the biggest difference between
12 the two is -- is caused, at least in
13 part, by the conduct. The conduct is
14 restricting the output of Bellator, the
15 conduct restricted the output of
16 Strikeforce.

17 And so for you now to claim
18 that we can't look at these market-based
19 transactions because of the harm that we
20 inflicted, it's -- it's partly your
21 problem as well.

22 Q. All right. You've said the
23 reasons that Bellator and Strikeforce are
24 comparable to UFC, other than the

Page 208

1 competition restrictions, you listed that
2 they're competing in the same relevant
3 input market, they're both MMA promoters,
4 they're both trying to go after the same
5 set of fighters. Anything else that
6 makes them comparable?

7 A. Same business models, same
8 industry. I don't know -- I don't know
9 what else I can cite, but I think those
10 name them pretty good comparables.

11 Q. Right. When you do a
12 yardstick comparison, would you
13 ordinarily look at the respective sales
14 and marketing of the two businesses?

15 A. It depends on the
16 application of the yardstick.

17 Q. Okay. In assessing damages
18 or anticompetitive effect, using the
19 yardstick between two firms that you're
20 considering as potential comparables,
21 would you ordinarily look at the
22 respective sales and marketing of those
23 businesses?

24 A. Well, I think I am in an

Page 209

1 indirect way in a sense that to the
2 extent marketing pushes up demand and
3 pushes out revenue by -- by controlling
4 for differences in revenue, I'm -- I'm
5 capturing that.

6 Q. When you do the yardstick,
7 how do you control -- when you do the
8 yardstick comparison, how are you
9 controlling for the amount of revenue?

10 A. I'm denominating the pay in
11 terms of fighter share per revenue.

12 Q. Right. But if the -- you're
13 assuming that the amount of revenue won't
14 affect the percentage fighter share?

15 A. I wouldn't put it that way.

16 Q. Okay. But going back to my
17 question, because I would like to get an
18 answer, because you said -- you said in
19 an indirect way you were looking at it.

20 But in assessing anticompetitive effect
21 or damages using a yardstick measure,
22 would you ordinarily directly compare the
23 respective sales and marketing of those
24 businesses?

Page 210

1 MR. CRAMER: Objection to
2 the form ordinarily. Form.
3 THE WITNESS: It would
4 depend on the application.

5 BY MR. ISAACSON:

6 Q. And when you say -- you've
7 said you used yardsticks or benchmarks
8 often before and you mentioned appraisal?

9 A. Of fair market value.

10 Q. Appraisals of fair market
11 value. Have you -- other than Arizona
12 nurses, have you used them previously in
13 estimating anticompetitive effect or
14 damages in an antitrust cases?

15 A. I'd have to -- I'd have to
16 go back case-by-case, but nothing is
17 popping in my head right this second.

18 Q. Is there any literature in
19 your field that establishes standards for
20 how you determine what's an appropriate
21 yardstick, what -- you know, to what
22 extent you should decide they're
23 comparable?

24 A. I -- I imagine there are

Page 211

1 papers again in very applied antitrust
2 journals that would talk about standards
3 for yardsticks, but you wouldn't find
4 something in a general economics journal.

5 Q. Are you familiar with any
6 published articles sets standards for
7 what's an appropriate yardstick in
8 estimating damages or an anticompetitive
9 effect?

10 A. I believe I've seen some
11 articles, but I'm not going to be able to
12 call up the name of the author for you
13 right now.

14 Q. Right. Those are -- those
15 aren't -- before you chose your
16 yardstick, you did not look at any
17 published standards for determining
18 what's an appropriate yardstick; is that
19 correct?

20 A. Well, I've just told you
21 I've looked at those things. I don't
22 know if I looked at them the moment that
23 I seized upon the Strikeforce and
24 Bellator.

Page 212

1 Q. Right.

2 A. But I have looked at them
3 and I'm familiar with them, and I'm using
4 my economic judgment to tell you they are
5 good benchmarks.

6 Q. All right. I understand
7 you're using your economic judgment and
8 you're saying they're good benchmarks.
9 But at the time you selected the
10 benchmarks, did you have -- were you
11 able -- did you have -- did you know
12 any -- any published standards for
13 selecting the yardstick for determining
14 anticompetitive effect or damages?

15 A. Did I have a particular
16 article in my mind as I --

17 Q. Not just the article, just
18 any standards.

19 A. Sure, I know -- I know what
20 you're trying to do. I know generally
21 what you're trying to do to abide by the
22 standards.

23 Q. What's -- when you say abide
24 by the standards, what standards are you

Page 213

1 referring to?

2 A. The standards of good
3 practice in economics.

4 Q. Okay. And the standards for
5 good practice in economics for
6 determining yardstick or determining
7 anticompetitive effect or antitrust
8 damages, you're not aware today of any
9 list of those standards; is that right?

10 A. A list of the standards?

11 Q. Or a --

12 A. I don't understand what that
13 means.

14 Q. A list or a description.

15 A. I know -- I know what you're
16 trying to do, which is to find a
17 competitive rate, right? You're trying
18 to find a rate that is offered by a firm
19 that is similarly situated that -- that
20 is not engaged in the challenged conduct.
21 Right? And so for me, I think it's
22 perfectly reasonable to go looking for
23 the rates that are offered by competitive
24 firms in the same industry for fighters.

Page 282	Page 284
<p>1 you have used are consistent with the 2 merger guidelines, but you're not able to 3 say whether they were sufficient to 4 define those markets based on the merger 5 guidelines? 6 MR. CRAMER: Objection to 7 form. 8 THE WITNESS: I don't -- I 9 just don't know what sufficient 10 means in that context. 11 BY MR. ISAACSON: 12 Q. Okay. And when you say 13 they're consistent with the guidelines, 14 what do you mean? 15 A. I think the guidelines tell 16 us, and I even quote the guidelines when 17 it comes to defining input markets, and 18 I'm faithful to the -- to the teachings 19 and to the standards that are articulated 20 in the guidelines. 21 Q. All right. And the output 22 markets that you define -- well, actually 23 let me break it down. 24 There's three -- two input</p>	<p>1 So -- so the way that I've 2 implemented the output market, it depends 3 on -- on the associated input market. 4 Q. Right. And that's why 5 mathematically I'm trying to understand 6 whether you have three output markets 7 tied -- each one tied to an associated 8 input market or there's one output market 9 tied to the three input markets. 10 A. Again, I like to think of 11 there being one output market and one 12 input market and these are just different 13 ways to measure them. 14 Q. And the -- when you defined 15 the output market, you used revenue 16 weighting; is that right? Oh, no, it's 17 other way around. Never mind. 18 The revenue earned by the 19 output market is the revenue that you use 20 when you do revenue weighting in the 21 input markets, correct? 22 A. It is possible to think of 23 it that way, but when I was finding my 24 weights, my revenue weighting measures</p>
Page 283	Page 285
<p>1 markets and one submarket, and there's a 2 geographic market for each of those, 3 correct? 4 A. Correct. 5 Q. And the geographic market 6 for all three would be North America? 7 A. Yes. 8 Q. Okay. And then you define 9 an output market. Is that an output 10 market that's tied to each input market 11 or is there one output market? 12 A. There's one output market, 13 but it does depend on how you have 14 defined the input market. You may recall 15 that when I -- when I chart, for example, 16 the number of events in the relevant 17 output market, it depends on -- I'm 18 making it as a condition that an event -- 19 an MMA event had to feature at least one 20 fighter that belonged to the relevant -- 21 to the associated relevant input market. 22 You probably recall -- 23 Q. Yes. 24 A. Those charts, 4A, B and C.</p>	<p>1 of, say, market share or foreclosure 2 share, I wasn't thinking about the fact 3 that those revenues occur in the output 4 market. But that's fair, if that's how 5 you would like to think about it. Of 6 course the -- the output is the 7 production of the event and the revenue 8 is associated with that output. 9 Q. Right. And can you describe 10 to me a situation where a firm would have 11 monopoly (sic) power in the output market 12 based on revenue, and would not have 13 monopsony power in the input market once 14 you use the revenue weighting? 15 MR. CRAMER: Incomplete 16 hypothetical. Talking about this 17 industry or just generally? 18 MR. ISAACSON: Generally. 19 MR. CRAMER: Incomplete 20 hypothetical. 21 THE WITNESS: I don't 22 understand the question because 23 the revenue weighting isn't really 24 affecting my -- my conclusions</p>

Page 286

1 with respect to, say, a finding of
2 monopsony power in the input
3 market.

4 BY MR. ISAACSON:

5 Q. Well, you do have findings
6 of monopsony power that do rely on
7 revenue weighting, right?

8 A. I think that under the --
9 under the indirect approach and under
10 only one pass through the indirect
11 approach, I weight fighters by -- by
12 revenues to make an inference about
13 Zuffa's high shares in that relevant
14 input market.

15 Q. Right.

16 A. But as you know, that's only
17 one of many, many approaches that allow
18 me to get to the conclusion of monopsony
19 power.

20 Q. Okay.

21 A. I actually prefer --

22 Q. So let's return --

23 A. Can I finish?

24 Q. I thought you were.

Page 287

1 A. I prefer direct evidence
2 generally, and I think that I've -- I
3 offer a slew of evidence that speaks to
4 how you can prove directly that Zuffa
5 exercises monopsony power.

6 Q. I understand that you
7 offered direct and indirect evidence, but
8 I need to ask about them one at a time
9 and we can cover both.

10 A. Okay.

11 Q. So in terms of when you
12 define a market, can you describe to me a
13 situation where if you use revenue
14 weighting in the input market, where
15 the -- a monopoly firm would not
16 necessarily have a monopoly in the input
17 market?

18 MR. CRAMER: Incomplete
19 hypothetical, form.

20 THE WITNESS: I've never
21 given thought to that, and I'd
22 like to think about it and maybe
23 we'll come back. But I don't
24 think I'm prepared to -- to

Page 288

1 construct a scenario about how
2 that could occur.

3 BY MR. ISAACSON:

4 Q. All right. The -- and then
5 you've described geographic market for
6 the output market also. And is that also
7 North America?

8 A. Yes.

9 Q. All right. The -- and in
10 terms of your SSNIP analysis -- all
11 right. So did you do -- well, my
12 colleague wants to know so it seems like
13 a good question.

14 A. I'm sure it is.

15 Q. In the out -- in the output
16 market, what is being sold? In the
17 output markets that you have defined.

18 A. Sure. I think that you
19 are -- the production or the product that
20 is being produced are -- is live MMA
21 events and the revenue associated with
22 those events can take the form of gate
23 revenue or pay-per-view. That's from --
24 from the consumer side. Of course,

Page 289

1 there's -- there's revenues from the
2 advertiser's side as well.

3 But I hope that answers your
4 question.

5 Q. All right. And does
6 pay-per-view compete with broadcast?

7 MR. CRAMER: Objection to
8 form.

9 THE WITNESS: I did not
10 conduct that inquiry.

11 BY MR. ISAACSON:

12 Q. Do you have an opinion one
13 way or another about that?

14 A. No.

15 Q. All right. With respect to
16 the -- does -- do the live venue events
17 compete with pay-per-view events?

18 A. I don't even understand the
19 question. Many of the pay-per-view
20 events are live.

21 Q. Meaning I watch it on
22 pay-per-view as opposed to go see it
23 live.

24 A. I haven't -- I haven't

Page 290

1 studied that and I imagine for someone
2 who lives very far from the venue where
3 the live event is staged, they would not
4 be considered reasonably close
5 substitutes.

6 Q. So for your input markets,
7 what evidence did you take into account
8 to assess customer's likely response to
9 price increase in the SSNIP analysis?
10 And feel free to point me to the sections
11 of your report that --

12 A. Did you mean to say -- I
13 think you just conflated the input
14 markets and customers. Maybe we should
15 start over.

16 Q. Yes, I said price increase
17 rather than wage decrease, but let me
18 just put it this way: What evidence in
19 your report did you take into account to
20 assess the likely response to a SSNIP in
21 the input markets?

22 A. Sure. So there it's the
23 perspective of the fighters not the
24 customers. So I was tripping up over

Page 291

1 your --

2 Q. Yes.

3 A. -- injecting customers when
4 we're talking about input markets.

5 So I can take you to the
6 relevant sections, and I will, but of
7 course at high levels, I'm looking at
8 record evidence of -- of what fighters
9 and promoters thought about substitution
10 possibilities as you -- if you were to
11 move away from Zuffa to counteract a
12 hypothetical wage cut.

13 Q. Okay. So the first thing
14 you looked at was record evidence of
15 substitution.

16 A. Or the perception of
17 substitution from the stakeholders, the
18 fighters, the promoters, and I'll just
19 point you, if you --

20 Q. That's -- that's sufficient
21 for -- for item 1.

22 MR. CRAMER: You asked him
23 to look at his report.

24 MR. ISAACSON: I'm going

Page 292

1 to --

2 MR. CRAMER: Okay.

3 MR. ISAACSON: I'm not going
4 to ask him to recite all the
5 documentary evidence.

6 BY MR. ISAACSON:

7 Q. And I understand that
8 there's documentary evidence that you're
9 not reciting today.

10 Okay. Other than the record
11 evidence of the -- about sub- --
12 perceptions of substitutability from the
13 stakeholders, what would be other parts
14 of your SSNIP analysis for the input
15 market?

16 A. I would direct you to
17 Section 3A 1 for all of the evidence that
18 I used to inform the construction of the
19 relevant input market.

20 Q. That would be the record
21 evidence that you were referring to?

22 A. Well, record evidence is
23 fairly broad, right, because it
24 encompasses almost everything. But I

Page 293

1 will point -- to me the -- what helps to
2 guide me to the findings that I made with
3 respect to the input market was the fact
4 that Zuffa was able to successfully
5 suppress fighter wages, wages either
6 measured by -- by wage share, regression
7 or by knowledge of the fact that wage
8 shares were falling over time from
9 26 percent to 18 percent, yet Zuffa did
10 not suffer sufficient defection so as to
11 render that wage decrease unprofitable.

12 Now, that -- that tells you,
13 as a matter of economics, that a -- that
14 a reasonable starting place for defining
15 the contours of the relevant input market
16 is just the fighters under Zuffa's
17 control. That was the -- the first thing
18 that occurred to me.

19 And once you -- once you
20 start there, you can start looking at
21 record evidence to determine whether
22 additional fighters from -- from rival
23 promotions ought to be included so that
24 you eventually get to the smallest set of

Page 294

1 fighters such that a hypothetical
2 monopsonist could profitably exercise
3 monopsony power.

4 Q. All right. And you said
5 that Zuffa was able to successfully
6 suppress fighter wages -- wage share.
7 You were talking only about the share of
8 revenues there, correct?

9 A. Correct.

[REDACTED]

Page 295

5 BY MR. ISAACSON:

6 Q. All right. But in your --
7 in your hypothetical there you held
8 revenues constant. Did you look at, as
9 part of your analysis of the input market
10 and defining that market, as to whether
11 Zuffa actually suppressed actual wages?

12 MR. CRAMER: Objection to
13 form.

14 BY MR. ISAACSON:

15 Q. As opposed to wage share?

16 MR. CRAMER: Same objection.

17 THE WITNESS: I'm focused on
18 wage share, of course, because
19 it's the right thing to look at
20 from an economic perspective.
21 We're trying to measure
22 exploitation, and the textbooks
23 tell you to do it as a share of
24 marginal revenue product.

Page 296

1 BY MR. ISAACSON:

2 Q. So my actual question was --
3 I understand you're focused on that, but
4 my question is, did you look at whether
5 Zuffa actually suppressed actual wages?

6 A. Without controlling for
7 revenues, no. Because it's incorrect to
8 do so.

9 Q. So in performing your SSNIP
10 analysis for the input markets, is it
11 fair to say that you relied on the record
12 evidence about the issue of perceived
13 substitution from the stakeholders along
14 with your observations that when Zuffa
15 suppressed fighter wage shares, there
16 weren't significant defections?

17 A. I think -- I think that
18 encompasses a lot. I also think that
19 Zuffa in its ordinary course of business
20 made use of a FightMetrics (sic)
21 database. I had -- the very first thing
22 I did when I -- when I got this case was
23 I started reading the economic literature
24 on the MMA industry, and almost every

Page 297

1 article I read, the FightMetrics (sic)
2 database formed the foundation of their
3 empirical analysis.

4 So I thought that that was a
5 reasonable place to begin to posit what
6 the smallest set of fighters that could
7 be under the control of a hypothetical
8 monopsony would be in order for it to
9 exercise market power.

10 Q. All right. Why did you use
11 the smallest set of fighters not the
12 smallest amount of promoters?

13 A. Well, because we're looking
14 at the input market. The fighters form
15 the elements of the input market. They
16 happen to belong to promoters, but
17 fighters are the elements or the
18 ingredients.

19 But I'm -- if I'm a
20 fighter -- just to make it clear, if I'm
21 a fighter and I'm thinking about
22 substituting, defecting from UFC and
23 going to a rival promotion, I don't care
24 what the name of the promotion is or

Page 322

[REDACTED]

Q. But as to the -- when you say significantly compared to the total number of Zuffa fighters, would that mean at least 50 or would you not have an opinion on that?

MR. CRAMER: Objection to form.

THE WITNESS: Oh, sitting here today, I can't put a number on it.

BY MR. ISAACSON:

Q. Okay. The -- and in a world with zero percent foreclosure by Zuffa, the fighters who were maintained by Zuffa under contract that they -- you say they could not use, in that world would those fighters still be Zuffa fighters?

Page 323

A. They may be Zuffa fighters and they may not be. I think -- I think a plausible scenario is those fighters break out when you relax their restrictions and go fight. They want to fight. You know, there's -- Dan White has this notion of rusting. He's got a phrase for it, what happens when a fighter sits around and doesn't get to fight.

I understand that it hurts their -- their careers, it hurts their ability to elevate in the profession when they're sitting around. Not only are they not fighting, but their muscles and the experience of being in a fight, it's hard to replicate in practice, and moreover, you don't get the opportunity to elevate by fighting other ranked fighters.

And you don't earn money. I mean, that's the -- that's the real thing. You don't get paid in this profession unless you fight.

Page 324

Q. In a world -- in a world with -- where Zuffa has zero percent foreclosure, would Zuffa contract with fewer fighters?

A. I think directionally you would see leakage and defective from Zuffa to rivals.

You had asked me earlier if I put an exact market share associated with it and I said no because I -- I can't, but I feel comfortable saying, at least directionally, that in a more competitive world with fewer restrictions on fighter mobility, you would see more mobility. I mean, it's almost -- it's almost tautological.

Q. I think previously you told me that in a world where Zuffa had a zero percent foreclosure, it still could have a market share as high as 90 percent. If that were the case, if it had zero percent foreclosure and a 90 percent market share, would Zuffa be contracting with fewer fighters than it is today?

Page 325

MR. CRAMER: Incomplete hypothetical.

THE WITNESS: I think that it's a complicated -- it's a complicated one. I'd probably have to think about it.

BY MR. ISAACSON:

[REDACTED]

Q. So to infer the price increase, did you take the amount of revenue for pay-per-view and divide it by the number of units?

Page 326

Page 328

1 A. I think revenue and units
2 were elements of my calculus, yes.

3 Q. All right. You did not look
4 at the actual amounts charged by the
5 cable company for the pay-per-view event?

6 A. I think -- I think I agree
7 with you that in this case I was looking
8 at it from the perspective of Zuffa.

9 Q. All right.

10 A. Which is the relevant
11 perspective to determine whether it was
12 profitable for Zuffa.

13 Q. Well, does the revenue
14 percentage of Zuffa vary even when the
15 pay-per-view price remains the same?

16 MR. CRAMER: Incomplete
17 hypothetical.

18 THE WITNESS: I'm sorry, the
19 revenue percentage of what?

20 BY MR. ISAACSON:

21 Q. So you were looking at Zuffa
22 revenue times pay-per-view units,
23 correct? I mean, divided by pay-per-view
24 units.

Page 327

Page 329

1 A. Correct.

2 Q. Correct. And Zuffa's
3 revenue by pay-per-view would be the
4 revenue share it gets from the cable
5 company?

6 A. Correct.

7 Q. Correct? And is it the case
8 that -- that the revenue share percentage
9 goes up and goes down irrelevant (sic) to
10 the price of the actual pay-per-view?

11 MR. CRAMER: Objection to
12 form.

13 THE WITNESS: And I don't
14 know. I think that it would all
15 depend. I would have to think
16 about it.

17 BY MR. ISAACSON:

Q. So you're characterizing all of the pay-per-view events as marquee events when you say marquee events?

A. I think that you might be able to find counterexamples, a handful of counterexamples of a pay-per-view that doesn't feature a headliner, but in general it would be really hard to sell it unless it featured a headliner.

Q. Right. And did the -- and if Zuffa -- if a firm decided that it wanted to move marquee events from pay-per-view to broadcast, would you consider that direct evidence of power to restrict supply?

MR. CRAMER: Incomplete hypothetical, form.

THE WITNESS: Well, you're

asking me to assume something that I understand to be an unprofitable move.

But if -- if your experts can show evidence that these marquee events moved one-for-one from pay-per-view to -- to television, I'd be happy to consider such evidence. But I don't have an opinion on it right now.

Q. Okay.

THE VIDEOGRAPHER: Excuse me, Counsel. We're approaching ten minutes left on the disk.

MR. ISAACSON: I think I'm done.

Give me one minute, but I think I'm about done for the day.

Give us a minute.

MR. CRAMER: Let's go off the record.

THE VIDEOGRAPHER: The time is 4:28 PM. We are going off the

record.

(Recess.)

THE VIDEOGRAPHER: The time is 4:31 PM. We have been on the record for five hours and 36 minutes.

MR. CRAMER: All right. We have no questions.

MR. ISAACSON: Thanks.

MR. CRAMER: Let's go off the record.

THE VIDEOGRAPHER: All right. The time is 4:31 PM.

This concludes the deposition and this is the end of Disk 3.

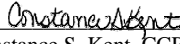
(Witness excused.)

(Deposition concluded at approximately 4:31 PM.)

CERTIFICATE

I HEREBY CERTIFY that the witness was duly sworn by me and that the deposition is a true record of the testimony given by the witness.

It was requested before completion of the deposition that the witness, HAL J. SINGER, Ph.D., have the opportunity to read and sign the deposition transcript.


Constance S. Kent, CCR, RPR,
Certified Court Reporter
Registered Professional Reporter
Certified LiveNote Reporter
and Notary Public in and for the
Commonwealth of Pennsylvania
Dated: October 1, 2017

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